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Frequencies of Daily Occurrence of Maximum and Minimum Temperatures at Sioux Falls, South Dakota, Each Week of the Year by Five Degree Intervals Together with Highest and Lowest Temperature Recorded and Standard Deviation of Temperatures Each Week of the Year

Ray F. Pengra

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July 1957

FREQUENCIES OF DAILY OCCURANCE OF MAXIMUM AND MINIMUM
TEMPERATURES AT SIOUX FALLS, SOUTH DAKOTA, EACH WEEK OF THE YEAR
BY FIVE ~~DEGREE~~ INTERVALS TOGETHER WITH HIGHEST AND LOWEST
~~TEMPERATURE~~ RECORDED AND STANDARD DEVIATION OF TEMPERATURES
EACH WEEK OF THE YEAR

Prepared by

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630.7
So87.02
No. 87
C.2

ACKNOWLEDGMENT

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INTRODUCTION

Frequencies of daily maximum and minimum temperatures are shown by five degree intervals for each week of the year for Sioux Falls, South Dakota, covering the years 1896 through 1955.

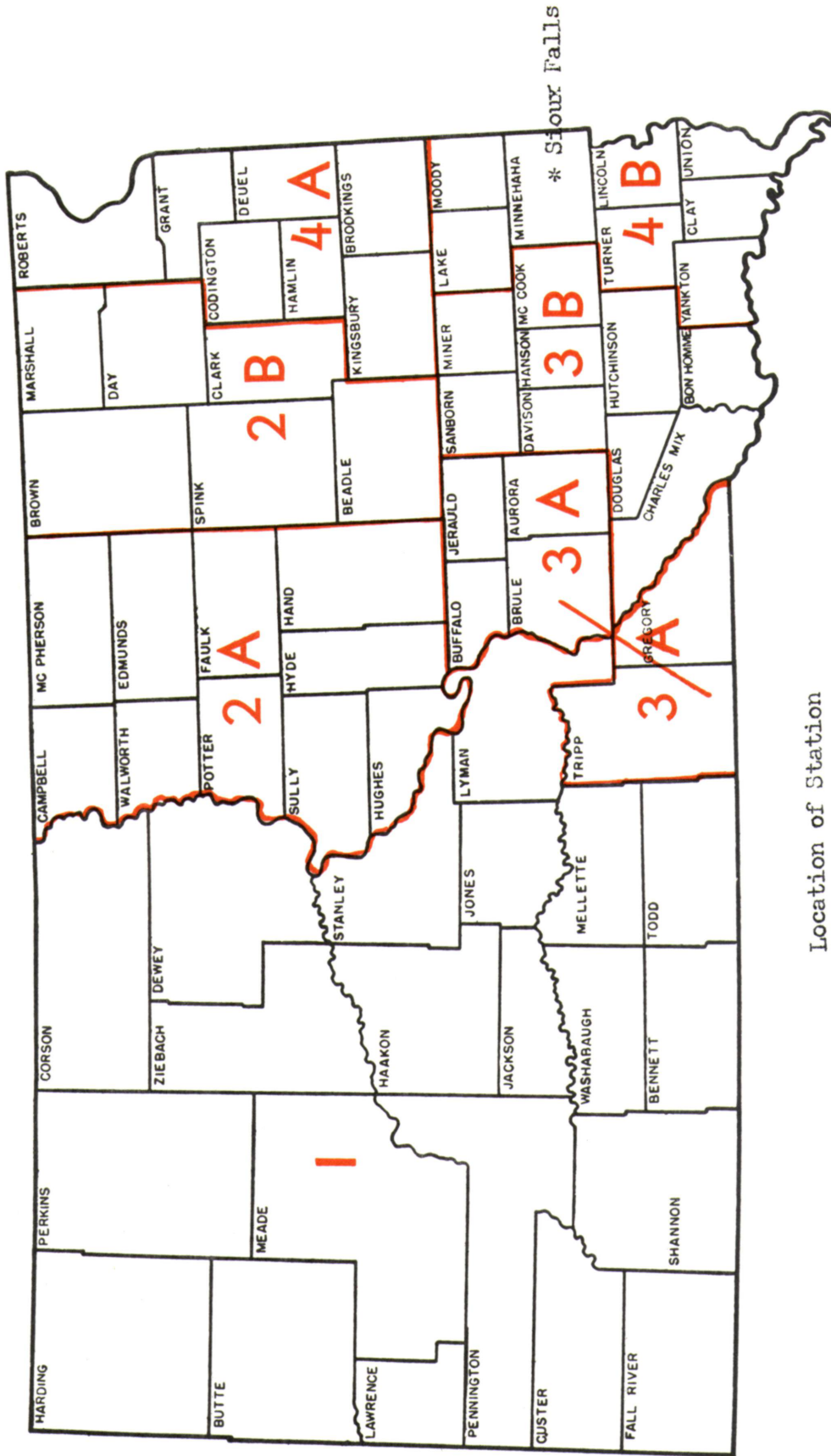
Weeks are numbered starting March 1 in order to have each week over the entire period represent the same calendar dates. For table of week numbers and corresponding calendar dates, see page 3.

Week 45 includes calendar dates January 3 through January 9 and is shown first in the table in order for the table to present the data approximately in calendar year order.

At the bottom of each page highest and lowest temperatures within each category together with the standard deviation of the daily temperatures are given.

Week Numbers with Inclusive Dates

Week Number	Beginning Date	Ending Date	Week Number	Beginning Date	Ending Date
01	Mar. 1	Mar. 7	28	Sept. 6	Sept. 12
02	Mar. 8	Mar. 14	29	Sept. 13	Sept. 19
03	Mar. 15	Mar. 21	30	Sept. 20	Sept. 26
04	Mar. 22	Mar. 28	31	Sept. 27	Oct. 3
05	Mar. 29	Apr. 4	32	Oct. 4	Oct. 10
06	Apr. 5	Apr. 11	33	Oct. 11	Oct. 17
07	Apr. 12	Apr. 18	34	Oct. 18	Oct. 24
08	Apr. 19	Apr. 25	35	Oct. 25	Oct. 31
09	Apr. 26	May 2	36	Nov. 1	Nov. 7
10	May 3	May 9	37	Nov. 8	Nov. 14
11	May 10	May 16	38	Nov. 15	Nov. 21
12	May 17	May 23	39	Nov. 22	Nov. 28
13	May 24	May 30	40	Nov. 29	Dec. 5
14	May 31	June 6	41	Dec. 6	Dec. 12
15	June 7	June 13	42	Dec. 13	Dec. 19
16	June 14	June 20	43	Dec. 20	Dec. 26
17	June 21	June 27	44	Dec. 27	Jan. 2
18	June 28	July 4	45	Jan. 3	Jan. 9
19	July 5	July 11	46	Jan. 10	Jan. 16
20	July 12	July 18	47	Jan. 17	Jan. 23
21	July 19	July 25	48	Jan. 24	Jan. 30
22	July 26	Aug. 1	49	Jan. 31	Feb. 6
23	Aug. 2	Aug. 8	50	Feb. 7	Feb. 13
24	Aug. 9	Aug. 15	51	Feb. 14	Feb. 20
25	Aug. 16	Aug. 22	52	Feb. 21	Feb. 27
26	Aug. 23	Aug. 29	53	Feb. 28	Feb. 29
27	Aug. 30	Sept. 5			



FREQUENCY WEEKLY DISTRIBUTION OF DAILY MAXIMUM TEMPERATURES FOR SIOUX
FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE RECORDED AND STAND-
ARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	45	46	47	48	49	50	51	52	1	2	3
110-114											
105-109											
100-104											
95- 99											
90- 94											
85- 89											
80- 84											1
75- 79											5
70- 74									2	4	10
65- 69							2		3	10	10
60- 64				1			2	2	9	16	28
55- 59		2	4	6	3	3	13	9	12	33	34
50- 54	4	4	12	13	6	11	10	27	15	35	34
45- 49	12	11	21	20	18	17	23	23	48	44	55
40- 44	32	42	44	32	39	54	42	56	60	57	58
35- 39	78	70	50	46	55	59	65	77	76	70	77
30- 34	67	79	59	56	61	55	73	63	70	61	42
25- 29	50	56	45	44	58	49	51	54	41	38	22
20- 24	52	47	51	47	40	42	43	43	38	28	21
15- 19	40	27	35	27	31	33	27	31	21	5	6
10- 14	28	28	39	40	31	28	28	11	6	8	8
5- 9	21	20	22	30	27	25	17	9	11	3	2
0- 4	14	12	13	27	17	12	5	1	1	1	
-5- -1	10	8	12	12	14	11	3				
-10- -6	4	4	3	7	4	1	2				
-15- -11	1	2	2	3	2	2					
-20- -16		1		1		2					
-25- -21					1	1					
TOTAL	413	413	412	412	407	405	406	406	413	413	413
Highest	54	59	58	62	57	59	66	62	73	73	83
Lowest	-12	-20	-15	-18	-22	-23	- 6	4	4	1	8

Std. Dev. 12.84 12.98 14.18 15.63 14.38 14.44 13.34 11.44 12.21 12.96 13.73

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MAXIMUM TEMPERATURES FOR
 SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
 RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
 1896-1955

Temperature Intervals	Week Number										
	4	5	6	7	8	9	10	11	12	13	14
110-114											
105-109											
100-104										1	2
95- 99						1	1	2	5	4	6
90- 94				1			14	6	12	14	28
85- 89	1	1	2	6	10	19	20	25	37	42	44
80- 84	6	8	4	18	28	34	27	41	61	71	77
75- 79	12	11	22	32	39	51	54	56	75	97	85
70- 74	14	16	23	36	61	50	77	89	93	82	66
65- 69	24	27	37	48	70	69	68	72	72	49	52
60- 64	33	41	64	59	57	64	50	55	37	29	28
55- 59	37	41	50	72	59	53	61	36	15	20	13
50- 54	42	58	63	54	35	37	24	20	6	7	6
45- 49	53	62	63	40	36	21	14	14	6	3	1
40- 44	65	64	47	35	21	11	8	3		1	
35- 39	51	52	36	15	2	7	1	1			
30- 34	36	22	8	3	2	3					
25- 29	21	12	1	1							
20- 24	12	1									
15- 19	1										
10- 14											
5- 9											
0- 4											
-5- -1											
-10- -6											
-15- -11											
-20- -16											
-25- -21											
Total	409	416	420	420	420	420	419	420	419	420	408
Highest	86	88	85	91	89	98	96	96	98	104	100
Lowest	17	24	28	28	34	33	36	39	47	44	46
Std. Dev.	14.12	12.67	11.95	12.46	11.58	12.07	11.39	10.59	9.26	9.53	9.65

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MAXIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	15	16	17	18	19	20	21	22	23	24	25
110-114						1					
105-109			1	1	2	2	6	2	2	2	
100-104	1	1	6	8	10	16	20	16	7	3	2
95- 99	6	18	26	33	36	31	33	40	34	18	24
90- 94	28	51	67	81	78	73	83	83	69	66	62
85- 89	52	80	83	77	96	112	116	115	117	116	98
80- 84	73	74	86	95	106	103	94	102	97	105	109
75-79	97	90	84	71	58	58	51	44	58	72	77
70-74	79	61	40	37	25	20	13	14	20	22	37
65- 69	50	21	13	14	7	3	3	3	7	8	11
60- 64	16	10	6		1				1	2	
55- 59	7	5	1				1				
50- 54	1	1									
45- 49											
40- 44											
35- 39											
30- 34											
25- 29											
20- 24											
15- 19											
10- 14											
5- 9											
0- 4											
-5- -1											
-10- -6											
-15- -11											
-20- -16											
-25- -21											
TOTAL	410	412	413	417	419	419	420	419	412	414	420
Highest	100	101	105	108	109	110	107	108	107	106	101
Lowest	54	50	57	65	61	67	58	68	63	63	65
Std. Dev.	8.40	8.67	8.32	8.04	7.51	7.47	7.31	7.07	7.26	7.06	7.12

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MAXIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	26	27	28	29	30	31	32	33	34	35	36
110-114											
105-109	1										
100-104	3	4	3								
95- 99	17	15	9	6							
90- 94	55	50	34	22	10	8	2	2			
85- 89	89	83	57	43	30	14	10	5	2	2	
80- 84	100	96	64	60	65	48	31	26	16	4	
75- 79	73	81	77	80	67	65	46	49	23	17	2
70- 74	52	44	67	74	77	91	72	66	46	46	20
65- 69	17	32	58	63	71	60	90	72	74	44	31
60- 64	10	9	27	38	50	58	58	63	59	56	50
55- 59	2	1	15	16	21	46	51	51	59	45	60
50- 54			1	8	17	17	37	44	53	63	79
45- 49			1	3	4	5	16	21	38	43	49
40- 44					1	2	7	15	26	42	46
35- 39						1		5	16	35	33
30- 34								1	6	9	25
25- 29									2	8	12
20- 24										2	4
15- 19										1	
10- 14											
5- 9											
0- 4											
-5- -1											
-10- -6											
-15- -11											
-20- -16											
-25- -21											
TOTAL	419	415	413	413	413	415	420	420	420	417	411
Highest	109	104	104	99	94	92	92	90	85	88	79
Lowest	59	56	49	45	44	39	40	32	26	19	20
Std. Dev.	12.22	8.32	9.93	9.96	9.99	9.72	10.10	10.09	11.93	13.04	11.67

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MAXIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number							
	37	38	39	40	41	42	43	44
110-114								
105-109								
100-104								
95- 99								
90- 94								
85- 89								
80- 84								
75- 79		1						
70- 74	6	3						
65- 69	14	21	3					
60- 64	27	23	2	2		3		
55- 59	43	37	17	8	8	6	3	
50- 54	54	45	41	30	19	10	7	4
45- 49	65	62	49	55	38	17	17	15
40- 44	60	72	82	66	60	42	47	46
35- 39	56	55	75	71	55	63	89	62
30- 34	46	34	63	64	62	64	71	82
25- 29	23	30	47	47	54	71	52	65
20- 24	12	25	14	33	46	47	47	35
15- 19	4	7	12	25	33	31	38	30
10- 14	4	4	12	10	12	20	23	28
5- 9	1	1	2	6	17	18	13	24
0- 4					9	13	8	16
-5- -1			1	1	6	11	2	7
-10- -6					1	2	3	3
-15- -11						2		
-20- -16								
-25- -21								
TOTAL	415	420	420	419	420	420	420	417
Highest	74	75	67	62	59	60	57	54
Lowest	1	5	-3	-2	-7	-11	-10	-10
Std. Dev.	12.30	13.00	10.90	11.50	13.32	13.55	11.70	12.60

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MINIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	45	46	47	48	49	50	51	52	1	2	3
85-89											
80-84											
75-79											
70-74											
65-69											
60-64											
55-59											
50-54											
45-49											
40-44				2		1	1	3	1	6	3
35-39	1	1	2	1	2	4	4	5	1	22	32
30-34	12	6	13	15	10	18	24	25	40	71	71
25-29	21	29	29	28	34	49	47	60	70	65	81
20-24	42	45	29	37	48	41	56	54	63	74	63
15-19	47	59	57	41	46	42	46	48	60	59	53
10-14	62	64	64	40	39	45	43	58	49	43	34
5- 9	58	57	42	46	42	43	48	47	39	28	25
0- 4	43	38	47	37	44	44	46	42	38	20	18
-5- -1	35	36	49	48	26	27	27	27	19	13	12
-10- -6	33	29	26	36	41	23	21	21	15	6	3
-15- -11	31	26	26	40	27	26	24	13	6	2	3
-20- -16	14	14	11	22	30	22	14	3	2	1	
-25- -21	9	3	15	11	9	8	3			2	
-30- -26	5		3	7	5	8	2				
-35- -31		4		1	2	2					
-40- -36		1			2	2					
-45- -39						1					
TOTAL	413	412	413	412	407	406	406	406	413	413	413
Highest	35	35	38	43	36	41	41	43	43	46	49
Lowest	-30	-38	-30	-32	-37	-42	-30	-19	-17	-23	-12

Std. Dev. 13.69 13.40 13.96 15.41 15.71 16.43 13.10 12.81 12.13 11.67 11.61

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MINIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	4	5	6	7	8	9	10	11	12	13	14
85-89											
80-84											
75-79										1	1
70-74							2	1		2	4
65-69					2	2	3	1	11	16	20
60-64		2			1	8	14	13	31	45	72
55-59		1	2	7	13	27	28	37	64	72	75
50-54	3	4	1	19	26	42	37	62	85	102	98
45-49	15	12	22	35	48	63	81	80	91	80	72
40-44	21	28	40	71	91	86	86	94	74	59	49
35-39	37	58	83	73	96	83	77	79	48	31	15
30-34	82	107	120	91	69	67	66	42	10	9	2
25-29	86	95	72	72	53	29	22	9	5	3	
20-24	61	48	50	33	17	12	3	2			
15-19	47	30	22	14	4	1					
10-14	23	18	7	11							
5-9	17	7	1								
0-4	12	5									
-5- -1	3	1									
-10- -6											
-15- -11	2										
-20- -16											
-25- -21											
-30- -26											
-35- -31											
-40- -36											
-45- -39											
TOTAL	416	416	420	420	420	420	419	420	419	420	408
Highest	60	60	59	58	65	66	74	70	68	76	77
Lowest	-1	-1	9	11	15	17	23	20	25	27	30
Std. Dev.	10.09	9.43	7.99	9.00	8.60	9.24	9.17	8.45	8.18	8.35	7.89

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MINIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	15	16	17	18	19	20	21	22	23	24	25
85-89											
80-84						1				1	
75-79				11	11	5	11	8	5	5	7
70-74	6	14	29	30	36	50	49	49	24	18	14
65-69	26	52	56	76	86	86	90	98	89	72	71
60-64	60	105	110	105	110	109	110	122	115	123	113
55-59	94	94	106	96	107	99	92	80	103	113	101
50-54	97	85	73	67	52	53	46	49	54	55	71
45-49	77	48	28	24	13	12	19	9	17	21	19
40-44	42	13	8	8	4	5	3	2	6	4	12
35-39	4	2	1					2		1	
30-34	4		1								1
25-29											
20-24											
15-19											
10-14											
5-9											
0-4											
-5- -1											
-10- -6											
-15- -11											
-20- -16											
-25- -21											
-30- -26											
-35- -31											
-40- -36											
-45- -39											
TOTAL	410	413	412	417	419	420	420	419	413	413	409
Highest	74	73	74	77	79	81	79	79	79	81	79
Lowest	32	39	34	40	43	43	42	38	43	35	34
Std. Dev.	7.50	6.96	7.03	7.33	6.79	6.95	7.03	6.85	6.73	6.67	7.11

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MINIMUM TEMPERATURES FOR
SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
1896-1955

Temperature Intervals	Week Number										
	26	27	28	29	30	31	32	33	34	35	36
85-89											
80-84											
75-79	4	1		5	4						
70-74	17	13	16	6	8						
65-69	51	55	37	16	27	4	1				
60-64	107	93	52	45	38	10	9	6	3		
55-59	96	85	83	66	76	35	36	23	7	7	
50-54	82	83	84	89	73	74	47	41	14	13	6
45-49	38	45	73	77	88	89	78	53	51	15	9
40-44	21	29	33	52	58	90	88	84	71	61	22
35-39	4	10	30	36	30	60	64	75	88	55	66
30-34		1	4	15	10	32	53	86	84	107	102
25-29				5	1	18	31	34	55	83	82
20-24				1		3	9	13	24	43	63
15-19							4	4	20	22	41
10-14						1		1	3	5	11
5-9										4	6
0-4										1	2
-5- -1										1	1
-10- -6											
-15- -11											
-20- -16											
-25- -21											
-30- -26											
-35- -31											
-40- -36											
-45- -39											
TOTAL	420	415	413	413	413	416	420	420	420	417	411
Highest	77	75	73	77	74	68	69	62	62	56	52
Lowest	35	34	27	24	24	13	16	13	11	-5	-2
Std. Dev.	7.59	8.00	9.08	9.69	9.25	8.68	9.42	9.28	9.12	9.43	8.79

FREQUENCY WEEKLY DISTRIBUTION OF DAILY MINIMUM TEMPERATURES FOR
 SIOUX FALLS, SOUTH DAKOTA, HIGHEST AND LOWEST TEMPERATURE
 RECORDED AND STANDARD DEVIATION OF DAILY TEMPERATURE
 1896-1955

Temperature Intervals	Week Number							
	37	38	39	40	41	42	43	44
85-89								
80-84								
75-79								
70-74								
65-69								
60-64								
55-59								
50-54	1							
45-49	1	3	1					
40-44	11	8	3	2			1	
35-39	49	38	12	11	10	3	3	
30-34	84	88	48	39	25	19	13	
25-29	79	85	81	69	45	45	34	16
20-24	75	81	96	86	84	52	51	35
15-19	49	37	60	62	62	58	69	33
10-14	29	28	43	47	51	56	58	51
5- 9	15	28	41	26	40	43	60	65
0- 4	12	14	17	39	31	40	46	49
-5- -1	6	6	11	18	27	22	41	47
-10- -6	4	4	4	13	27	28	19	40
-15- -11			3	7	11	20	9	34
-20- -16					3	17	13	26
-25- -21					4	14	1	17
-30- -26						3	2	2
-35- -31								1
-40- -36								1
-45- -39								
TOTAL	415	420	420	419	420	420	420	417
Highest	50	47	46	42	39	38	40	32
Lowest	-9	-6	-12	-13	-22	-28	-26	-31
Std. Dev.	10.24	10.69	10.10	11.61	12.95	14.93	12.45	13.39